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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/921,867	08/03/2001	Brian Samuel Beaman	YOR919930028US6	7821

7590 06/30/2004

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P.O. Box 218  
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EXAMINER
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TUGBANG, ANTHONY D

ART UNIT	PAPER NUMBER
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3729

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/921,867

Applicant(s)

BEAMAN ET AL.

Examiner

A. Dexter Tugbang

Art Unit

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 29-393 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 29-393 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered Claims 30-394 (filed in each of the Preliminary Amendments on 4/2/02, 4/19/02, 6/4/02, 6/11/02, 8/7/02, 8/8/02) have been renumbered as Claims 29-393, respectively.

2. Upon further consideration by the examiner, the restriction requirements dated on 3/12/03 and 6/18/03, have each been withdrawn due to the different inventions within the process of making as detailed below. Any delay in prosecution is deeply regretted.

3. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 29-62, 67-91 and 99-105, drawn to a process of making an electrical device, classified in class 29, subclass 825.
- II. Claims 63-66, 92-98 and 106-393, drawn to a product of an electrical structure, classified in class 361, subclass 760.

The inventions are distinct, each from the other because of the following reasons:

4. Inventions of Groups I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the

Art Unit: 3729

instant case, the product of Group II can be made by materially different methods such as one that requires a completely different chronological order of steps, or without any sacrificial substrate, or without any coating, as required by Group I.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

6. If applicant(s) elect the invention of Group II, this application contains claims directed to the following patentably distinct species of the claimed invention.

Species A, directed to Figure 2;

Species B, directed to Figure 3;

Species C, directed to Figure 14;

Species D, directed to Figure 15;

Species E, directed to Figure 16;

Species F, directed to Figure 17.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, there appears to be no generic claims in the invention of Group II.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Art Unit: 3729

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

7. If applicant(s) elect the invention of Group I, then a restriction to one of the following inventions is required under 35 U.S.C. 121:

I-A. Claims 29-62, drawn to a process of forming an electrical interconnection, classified in class 29, subclass 825.

I-B. Claims 67-91 and 99-105, drawn to a process of forming a fanout structure, classified in class 29, subclass 874.

The inventions are distinct, each from the other because of the following reasons:

8. Inventions of Groups I-A and I-B are related as combination and subcombination.

Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination (Group I-A) as claimed does not require the particulars of the

Art Unit: 3729

subcombination (Group I-B) as claimed because Group I-A does not require the particulars of any fanout electrical structure, as required by Group I-B. The subcombination has separate utility such as a process of forming a fanout electrical contact structure.

9. Because these inventions are distinct for the reasons given above and the search required for Group I-B is not required for Group I-A, restriction for examination purposes as indicated is proper.

10. If applicant(s) elect the invention of Group I-A, then a restriction to one of the following inventions is required under 35 U.S.C. 121:

I-A1. Claims 29-52, drawn to a process of making a contact tip structure, classified in class 29, subclass 831.

I-A2. Claims 53-62, drawn to a process of making a compliant electrical structure having an enlargement, classified in class 29, subclass 846.

The inventions are distinct, each from the other because of the following reasons:

11. Inventions of Groups I-A1 and I-A2 are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention of Group I-A2 has separate utility such as forming an enlargement. See MPEP § 806.05(d).

12. Because these inventions are distinct for the reasons given above and the search required for Group I-A2 is not required for Group I-A1, restriction for examination purposes as indicated is proper.

13. If applicant(s) elect the invention of Group I-B, then a restriction to one of the following inventions is required under 35 U.S.C. 121:

Art Unit: 3729

I-B1. Claims 67-91, drawn to a process of making a compliant electrical conductor, classified in class 29, subclass 842.

I-B2. Claims 99-105, drawn to a process of providing a fanout member, classified in class 29, subclass 876.

The inventions are distinct, each from the other because of the following reasons:

14. Inventions of Groups I-B1 and I-B2 are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention of Group I-B2 has separate utility such as providing a fanout member. See MPEP § 806.05(d).

15. Because these inventions are distinct for the reasons given above and the search required for Group I-B2 is not required for Group I-B1, restriction for examination purposes as indicated is proper.

16. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

17. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

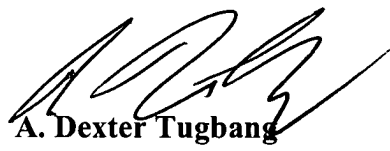
Art Unit: 3729

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Dexter Tugbang whose telephone number is 703-308-7599.

The examiner can normally be reached on Monday - Friday 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 703-308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**A. Dexter Tugbang**  
**Primary Examiner**  
**Art Unit 3729**

June 28, 2004